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Gound Based Interceptor Guidance and Control Experiments at the Nevada Test Site Captive Flight Test Facility

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ABSTRACT

This paper describes detailed experimental results from a set of ground based guidance and control experiments conducted at the Nevada Test Site (NTS) Captive Flight Test Facility (CFTF). The experiment employed an interceptor with integrated seeker, IMU, and propulsion hardware to demonstrate technology required to achieve a submeter intercept at near 0 g's environment. The intercept performance was evaluated against Hardware-in-the-Loop (HITL) 6DOF simulation predictions. In addition, appropriate guidance and control scaling laws and cost benefits between actual and ground based flight experiments will be discussed.

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